

## Fundamentals of Quality Precast Concrete

Duration: 3-4 hours

- **Concrete Materials and Reinforcement**  
The science of the material properties is a key component to producing quality concrete. This segment teaches the important roles the ingredients play in the production of precast concrete.
- **Concrete Mixes**  
Concrete is a composite of aggregate and paste. The proportions of the materials can affect the quality and consistency. This segment teaches some basic principles of concrete mix design.
- **Batching and mixing**  
Mixing and placing concrete in a form must be done properly. This segment teaches the important steps in the batching and mixing process.
- **Prepour Operations**  
It is easier to correct a mistake before the concrete is poured. This segment discussed the important role that the prepour inspection plays in making quality precast.
- **Production Practices**  
Once the concrete is placed, the consolidation, finishing, and curing of the material can affect the quality and durability of the product. This segment will discuss the key steps in vibration, floating, troweling, and curing and the role they play in product quality.
- **Post Pour Operations**  
What you pour is what you get, but sometimes embedments shift during the pouring process. This segment explains the importance that a post pour inspection plays in customer satisfaction.
- **Finished Product Handling**  
Sometimes the greatest stress a precast product will see is a result of handling. This segment will outline some key techniques for assuring the product remains in a good condition.
- **Quality Management System**  
What gets documented gets done. A documented quality system provides the system of instructions necessary for a quality product, and the evidence of performing those steps. This segment will explain the importance of a quality management system.